Phenotypes of aggressive psychiatric patients' and delinquents' projective drawings

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Abstract
Aggressive psychiatric patients (n = 266) on the base of their explicitly aggressive behavior in the community and delinquents (n = 81) who were sent to prison because of murdering one or more victims were administered the House–Tree–Person Test (Buck, 1948), followed by an animal and a free drawing. With hierarchical cluster analysis configurations of drawings were identified. Some of the items in clusters and configurations were traditional indicators, other items were rarely found in the literature but they are often observable in clinical settings. Instead of a confused mixture of items, the configurations ordered the variables in phenotypic groups that are prone to occur together. The article describes the observed phenotypes in configurations.

Keywords: projective drawings, aggression, cluster analysis, configurations, House–Tree–Person Test, animal drawing, free drawing.

Bibliographic reference

The question of how projective drawings express aggressiveness of the drawer is an old problem. As long ago as the “golden fifties” of the psychology of projective drawings, it had been investigated by the first classic authors in the field (e.g. Buck, 1948a,b,c; Koch, 1949; Machover, 1949; Hammer, 1958; Koppitz, 1968). As a conclusion, a vast body of knowledge has been accumulated in the topic of pictorial expression of aggression.

However, many questions remained unclear. The early projective authors collected their valuable clinical observations with particular patients. The interpretations from single case studies were later published in handbooks and became classic interpretations. Observations that were originally plausible in a particular clinical case, were re-published in more and more over-generalized forms. A “chain” of reproductions began, new books and manuals were printed, containing the same lists of signs. Examples are Koch’s book in Switzerland (1949), the case studies from Vernier (1952), Jolles’ catalogue of signs (1964/1996), Urban’s catalogue (1963/1994), Hammer’s manual (1958), Ogdon’s psychodiagnostic handbook (1981/1993, 1996), Wenck’s diagnostic handbook (1977/1995), Bolander’s book on tree drawings (1977), or Di Leo’s book on childrens’ drawings (1983).

While everyone could “feel” that drawings somehow do reflect the personality of the drawer, they do not express the personality in the simple “algorithmic” way as it is described in the classic handbooks. One should be really astonished at the uncritical reproduction of diagnostic statements that contradict common sense and clinical reality. For example, the old works of Buck are almost unusable for clinical diagnosis in individual cases. With quite a few exceptions, we could cite nearly all kinds of diagnostic statements from such manuals. For example, overly long arms do not inevitably imply overambiguous striving, and very short
arms do not connote an absence of striving. These statements may be true — sometimes and accidentally. The meaning of the drawing, the real information, the “truth” is not stored in the drawings at this level. Drawings do express the personality — but somehow otherwise.

**The new approach: configuration analysis**

This paper tries to approach the question of the pictorial expression of aggressiveness in a more sophisticated manner than searching for “signes-fixes”. The key words are phenotypes and configurations. The method based on heuristic analysis of patterns emerging from drawings (described in detail in Vass, 2002, 2005). First, defining the two basic concepts of this study: projective drawing and aggression. Based on Sehringer's (1957, 1983, 1989, 1992a, 1992b, 1999) definition of “drawing” in general, we define a projective drawing as an inner structure externalized through drawing movements. This inner structure can be not simplified to the projection of unconscious material. Regarding our second term, we define aggression in this study as any behavior, inner thought, feeling or any intrapsychic phenomena where there is the intention of hurting someone, something, or oneself. Referring to Hárdi (2001), aggression could be conscious or not conscious, manifest, latent, or transformed into other psychological phenomena (e.g. anxiety, physical symptoms or seemingly non-aggressive behavior).

**A study on aggressive psychiatric patients and delinquents having committed homicide**

The classic signs are too general to use them in the clinical practice: all of them have context-dependent meanings, therefore they are not applicable for individual cases. Examples of the classic signs are: spiky forms, dark and heavy lines, teeth or angry facial expression in the human figure drawings, spear-like, pointed branches in the trees, or wild animals in the animal drawings. After overviewing these collection of signs, one may ask: Are these interpretations true? What kind of drawing is characteristic of the really aggressive people?

**Method (Participants and procedure)**

In a study we dealt with drawings from explicitly aggressive individuals, selected from two groups: (a) aggressive psychiatric patients selected from the sample (n = 266, described in detail in Vass, 2002) on the base of their explicitly aggressive behavior in the community, as assessed from previous diagnosis, clinical interview and hetero-anamnnesis; (b) delinquents (n = 81, ranging from 14 to 57 years of age, M = 26.65, SD = 10.42, sixty-eight percent male) who were sent to prison because of murdering one or more victims. Although the two groups were different in their psychiatric status and in some other aspects, their drawings were analyzed together in order to observe patterns of the pictorial expression of aggressiveness. Because of the mixed nature of the sample, no other conclusions were drawn related to personality traits, and the empirical study described here serves as an illustration for the analysis of drawing phenotypes (see below).

Psychiatric patients were administered the House-Tree-Person Test (Buck, 1948), followed by an animal and a free drawing. A factory-sharpened pencil of medium-soft lead was employed, without an eraser. Participants were instructed to (a) “draw a house”, (b) “draw a tree”, (c) “draw an animal”, (d) “draw a person”, (e) “draw something (anything what you like)”. No other instructions or explanations were provided. After the drawing test a post-drawing interrogation (modified version of Buck, 1948) was accomplished. Delinquents were administered the human figure drawing test (according to Machover, 1949).
Results: Eight phenotypes

The most important result was that the traditional aggression indicators were missing from the majority of the drawings. The concrete appearance of the drawings were utterly diverse. Aggressiveness could not be unambiguously identified (e.g. a large number of delinquents made simple stick-figure drawings). In those drawings where particular signs of aggression appeared, the actual, traditional aggression indicators could also be interpreted as regression, anxiety, organic brain damage, depression, manic states or schizophrenia instead of aggression.

On the other hand, when changing our focus of attention from the details to the whole, eight typical phenotypes emerged from the drawings. These phenotypes were recurrent drawing types that differed from the average drawings of healthy subjects (see in detail Vass, 2002) in some particular aspects. The observed phenotypes are described and illustrated in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Phenotype</th>
<th>Description of drawings' phenotypes</th>
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<tbody>
<tr>
<td>Phenotype 1</td>
<td>Schematic circle-line schemes and stick-figures (according to Hárdi, 1983, b1 and b2 personality levels) reflecting evasiveness and noncompliance. Most of them were large and crudely drawn.</td>
</tr>
<tr>
<td>Phenotype 2</td>
<td>Idealized, detailed, and large male figure with muscles, emphasizing physical power. The figures are stripped to the waist and depicted with unrealistically strong muscles, broad shoulders and fingers made into fist.</td>
</tr>
<tr>
<td>Phenotype 3</td>
<td>Figures with angry, hard, stern, or suspicious facial expression. These drawings were either primitive or detailed, realistical delineations with explicitly angry global-emotional quality.</td>
</tr>
<tr>
<td>Phenotype 4</td>
<td>Aggressive thematic stereotypes as soldier, cowboy with weapons, or morbid themes as skeleton or devil.</td>
</tr>
<tr>
<td>Phenotype 5</td>
<td>Grotesque, caricature-like figures, quickly drawn with teeth, tongue, large nose and ears, hair standing on end, alcohol or cigarette. Sometimes genitalia are also explicitly drawn.</td>
</tr>
<tr>
<td>Phenotype 6</td>
<td>Simple, primitive, rigid, schematic figures crudely drawn. Essential parts of the figures may be omitted. The lines are short, discontinuous, drawn with fluctuating pressure and reinforcements. Spiky, hooked lines or forms, sometimes teeth may also be present.</td>
</tr>
<tr>
<td>Phenotype 7</td>
<td>Bizarre or confused drawings, heavy pressure, structural deficits of the body image.</td>
</tr>
<tr>
<td>Phenotype 8</td>
<td>Large portrait, cold emotional quality, rigid lines, angry or frightening facial expression, open or shouting mouth, hair standing on end or bald head.</td>
</tr>
</tbody>
</table>
Conclusion

The question of the pictorial expression of aggressiveness is a popular problem. Many authors published lists of “signs”, but few of them produced original work. Because of their prevalent paradigm, the majority of the handbooks are almost too vague for clinical diagnosis in individual cases. This paper argues for the view that the meaning of the drawing, the real information, the “truth” is not stored in the drawings at the level of isolated signs and mechanistic interpretation. The author attempted to approach the point in a more sophisticated way.

First, "projective drawing" was defined as being more than expressive movements or unconscious projection. It was regarded as an inner structure externalized through drawing movements that consist of five elements, with variable ratio: learned cognitive schemes, analogue or transformed signs and symbols of pictorial communication, expressive movements, a personal construct of an individual reality, and in some cases traces of unconscious projection.

Secondly, the comprehensive list of traditional indicators of aggression was confronted with phenotypes that had been observed in the drawings of aggressive psychiatric patients and delinquents who were sent to prison because of murdering one or more victims. It was found that the traditional aggression indicators were missing from the majority of the drawings, and the concrete appearance of the drawings were utterly diverse. Aggressiveness could not be unambiguously identified, and the actual aggression indicators could also be interpreted by other motives than aggressiveness.

Thirdly, instead of a signes-fixes item-analysis, a more complex method of configuration analysis was proposed to identify phenotypes of projective drawings. The main idea was that there were constant types of HFDs, but they are genotypes rather than phenotypes: their specific manifestation forms are different. However, the possibility of different manifestations does not mean an unlimited variety: a well-defined group of items could be identified, for example with hierarchical cluster analysis. These hierarchical phenotypes could be operationalized as configurations. A configuration was defined as a psychological characteristic (trait, meaning, and interpretation) associated with a certainty factor and a list of items. A phenotype item may represent different kind of variables: general background, features of case history, the process of drawing, self-interpretation of the graphic production by the drawer, global aspects, formal-structural aspects, content of the drawing and drawing styles.

The essential attribute of a configuration is that it indicates a psychological feature only when several items are present in a drawing at the same time. Two rules of configuration analysis were also introduced: (a) The same graphic items express different psychological meanings in different item-configurations; (b) even the psychological meaning of an item-configuration depends on the presence of all other item-configurations.

As to the empirical results, several configurations of drawings from aggressive individuals were identified with the instruments of cluster analysis and expert system analysis. Some of the items in clusters and configurations are traditional indicators, other items are rarely found in the literature but they are often observable in clinical settings. Instead of a confused mixture of items, the configurations ordered the variables in phenotypic groups that are prone to occur together. The number of the items in any configuration should exceed a limit, and the more items present, the more it should increase the psychological meaning’s starting degree of certainty. The degree of certainty is expressed in a number, ranging from 0 to 100, and it could be computed exactly. The method of configuration analysis was operationalized in the ESPD expert system (see Vass, 1999a, 1999b, 2000, 2001, 2005, 2006, 2012), which was explicitly designed to help clinicians for interpreting projective drawings in a sophisticated method.
References


Machover, K. (1949). *Personality Projection in the Drawing of the Human Figure*. Springfield: Thomas.


